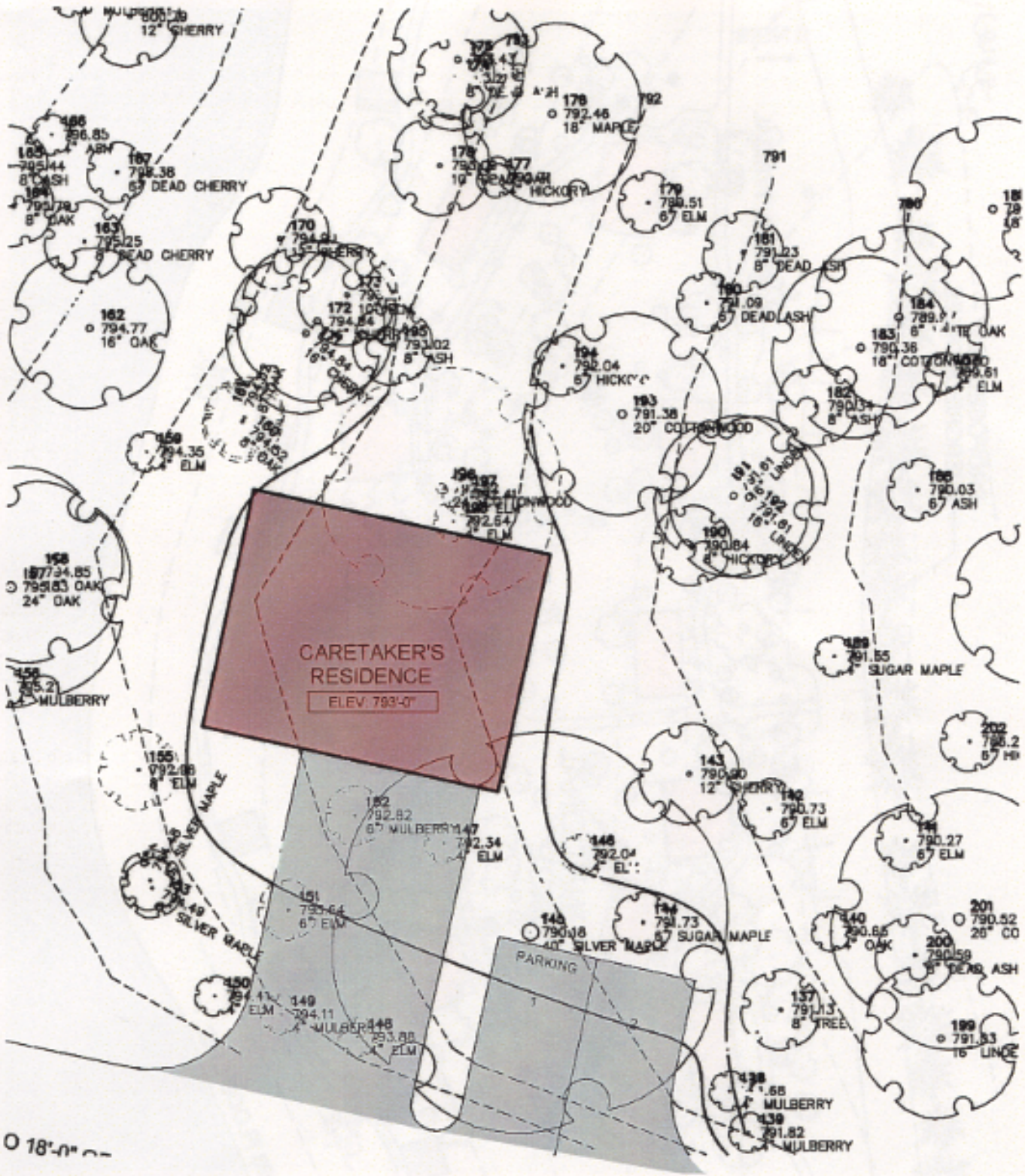
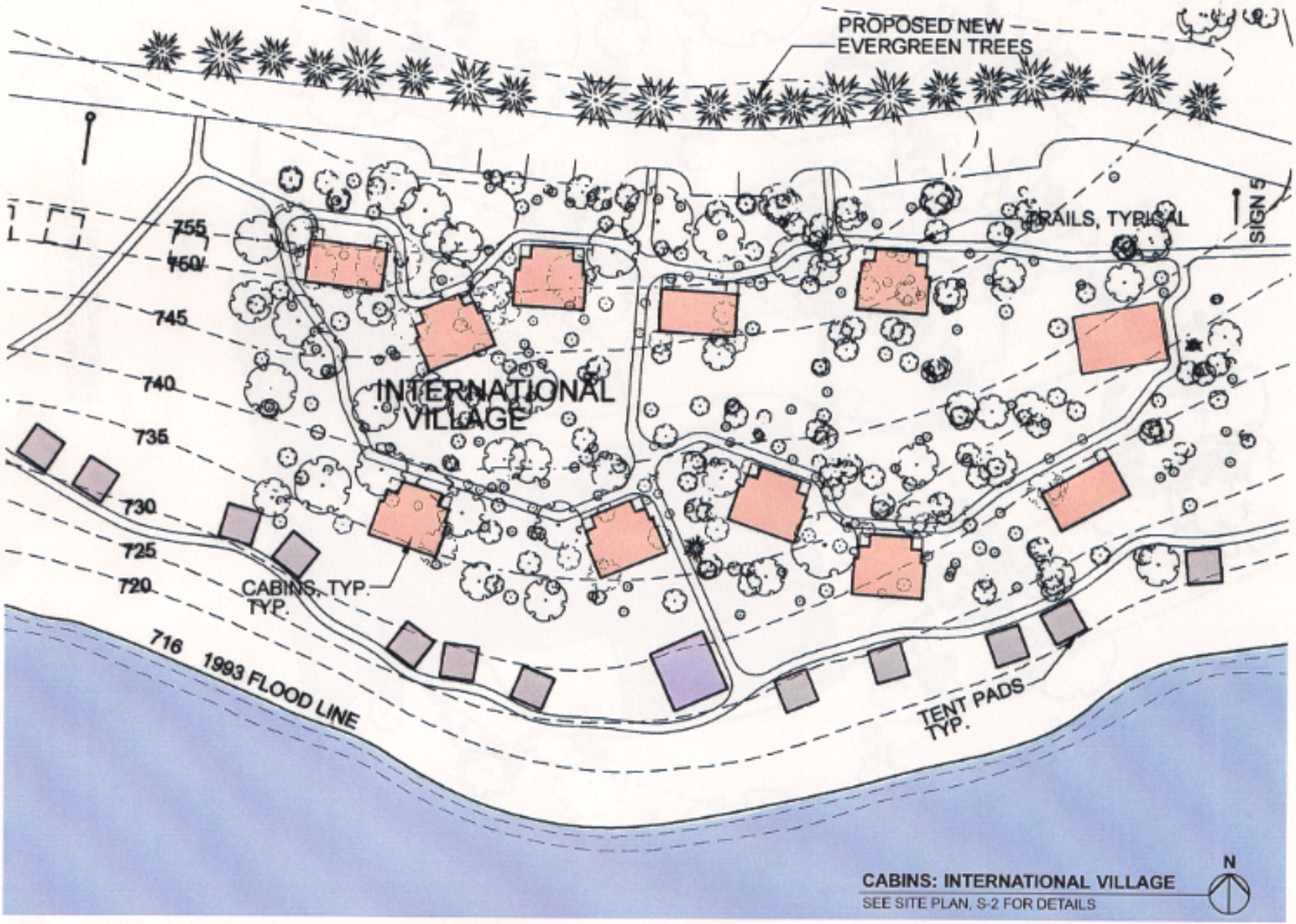


CARETAKER'S UNIT
SEE SITE PLAN, S-1 FOR LOCATION

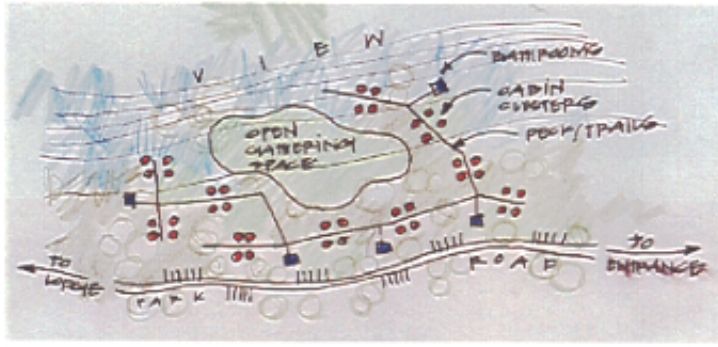


Site Plan: Cabins

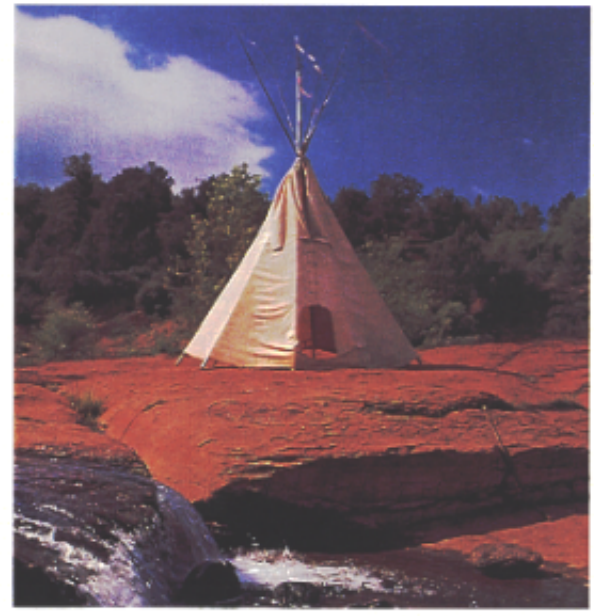
■ CABINS: INTERNATIONAL VILLAGE

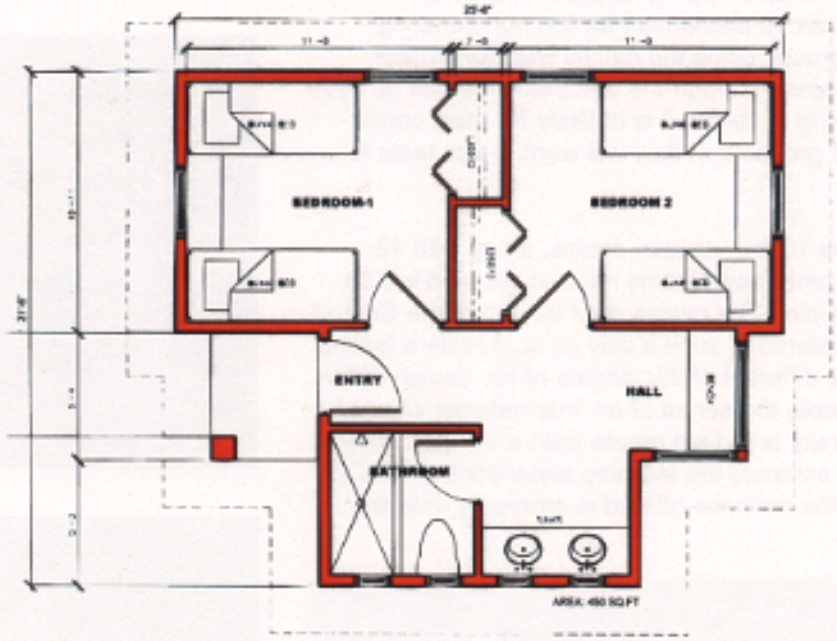
The 'cabins' will reflect different ethnic housing solutions from around the world. Minimal in size, they are meant to provide housing for up to 8 people, assuming bunk beds. The bunk beds can be dismantled for the non-camping seasons, if the groups using the cabins wish for smaller groups in the cabins. Though the tent platforms can be used in the non-camping seasons, it is unlikely for most conference and retreat groups that they will want to use tents for housing.

The site will have 10 four-season cabins, along with 12 14'x14' wooden tent pads. Cabins nearest the road will be handicap accessible. The cabins near the top of the Central Ridge will be clustered in such a way as to provide a feeling of a village. The different ethnic origins of the design of the 'cabins' will promote the sense of an 'international village." This ethnic diversity is to help create both a visually exciting area as well as enhance the learning experience of MYCA's guests towards the richness offered in ethnically diverse settings.

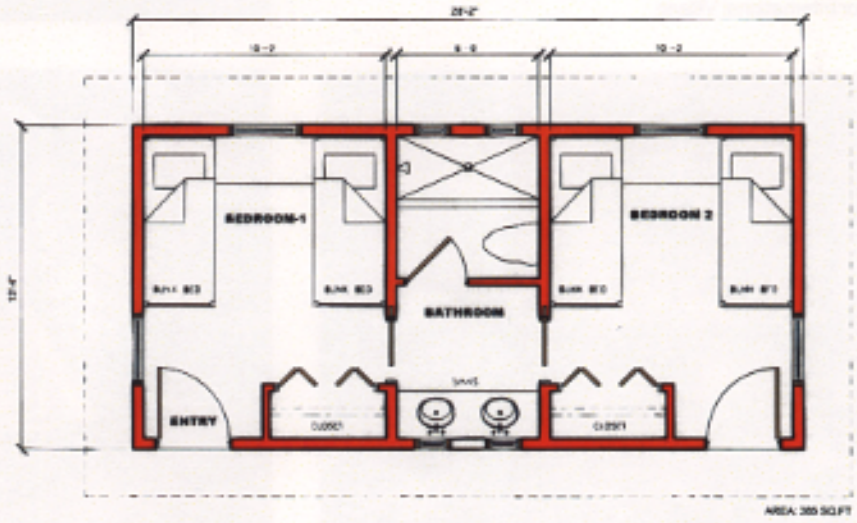


Conceptual sketch for International Village

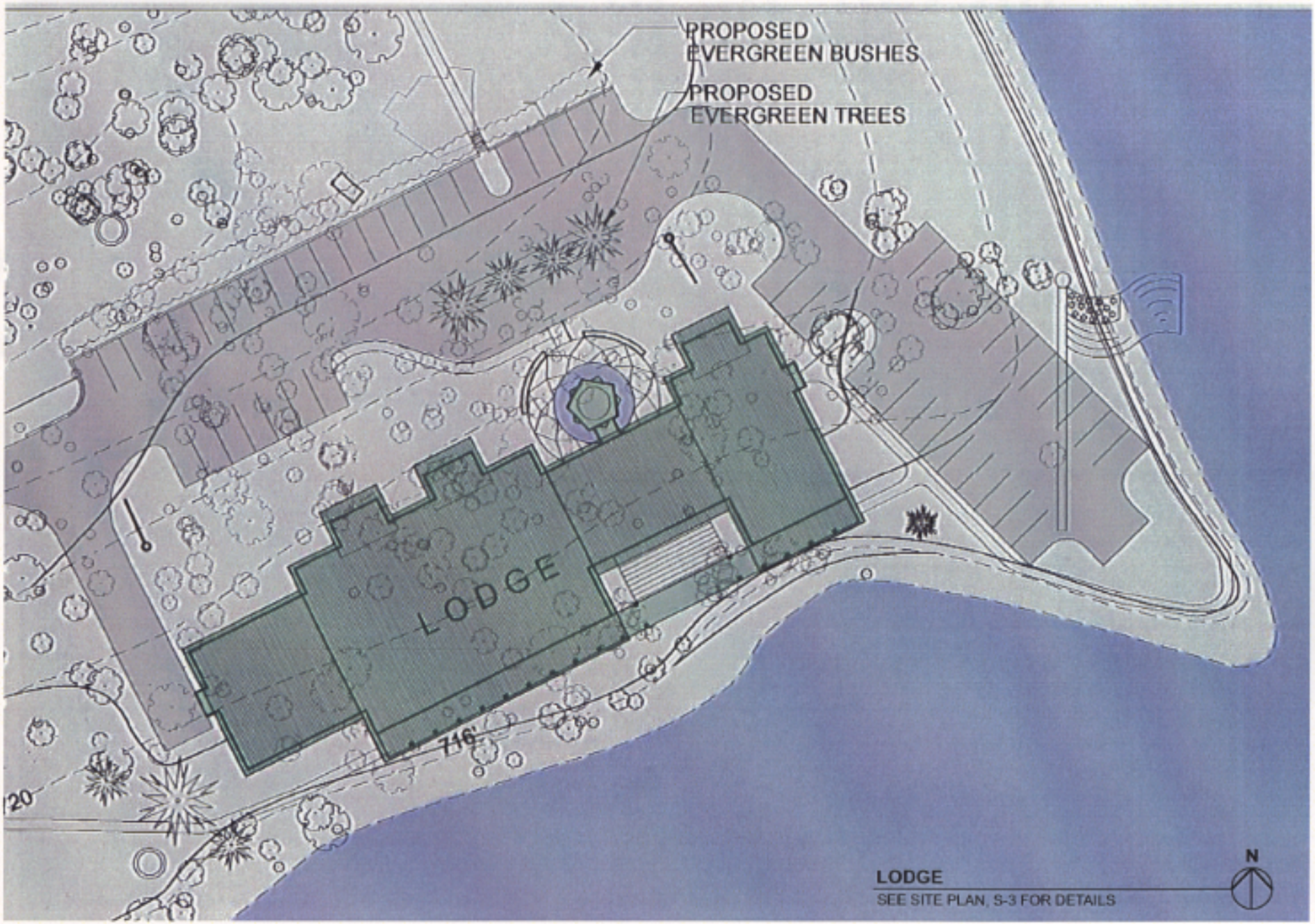


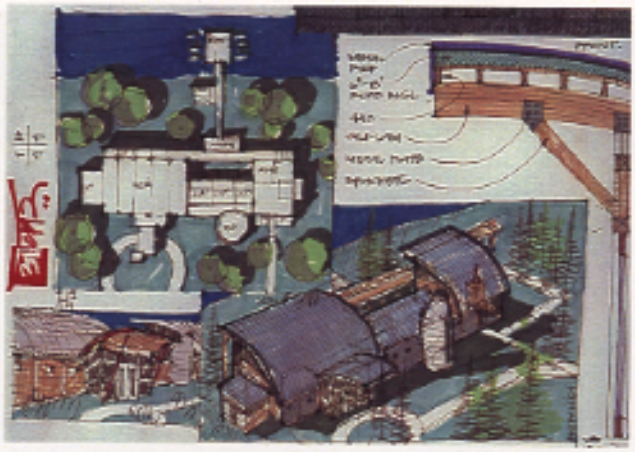


■ **TYPICAL CABIN-1** SCALE: 1/8" = 1'-0"

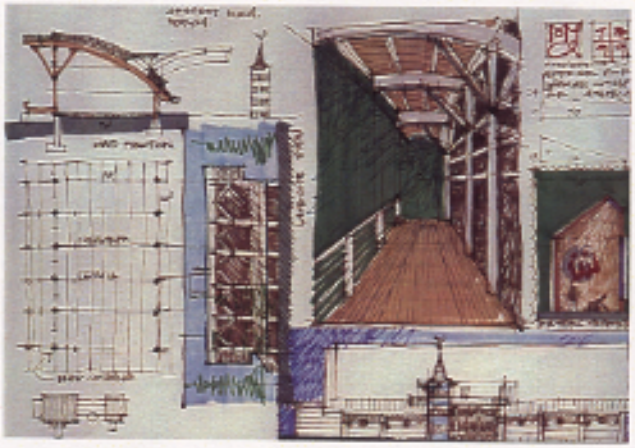


■ **TYPICAL CABIN-2** SCALE: 1/8" = 1'-0"


PROPOSED
EVERGREEN BUSHES
PROPOSED
EVERGREEN TREES
LODGE
716'
20'
LODGE
SEE SITE PLAN, S-3 FOR DETAILS
N



Conceptual Sketches



Conceptual Sketches

■ CAMP HERITAGE LODGE:

Lodge placement and design is to meet several design needs.

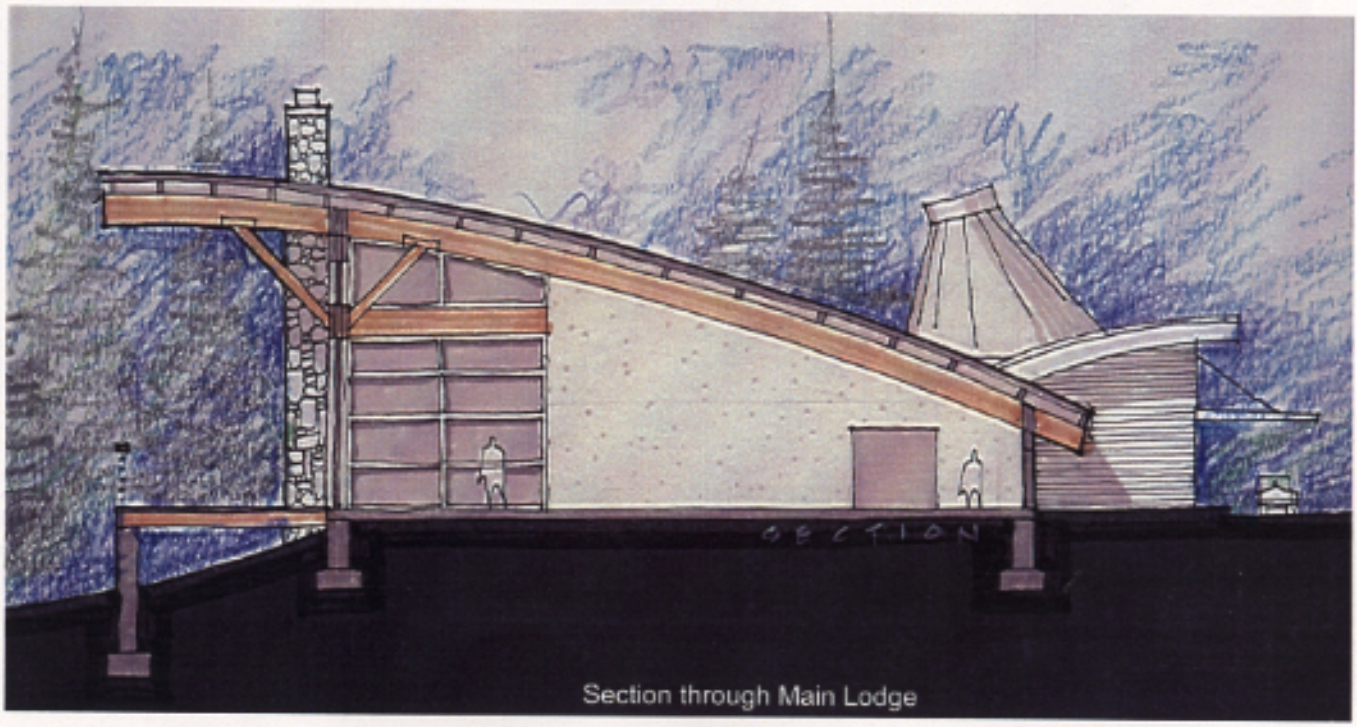
■ Lodge is placed on lowest possible elevation to assist diminution of the structure within the landscape. Rather than dominate landscape, MYCA wants the lodge to be integrated into the landscape.

■ Lodge is oriented to provide guests the best possible view of the lake, while also maximizing passive solar design for heating of the lodge during the winter.

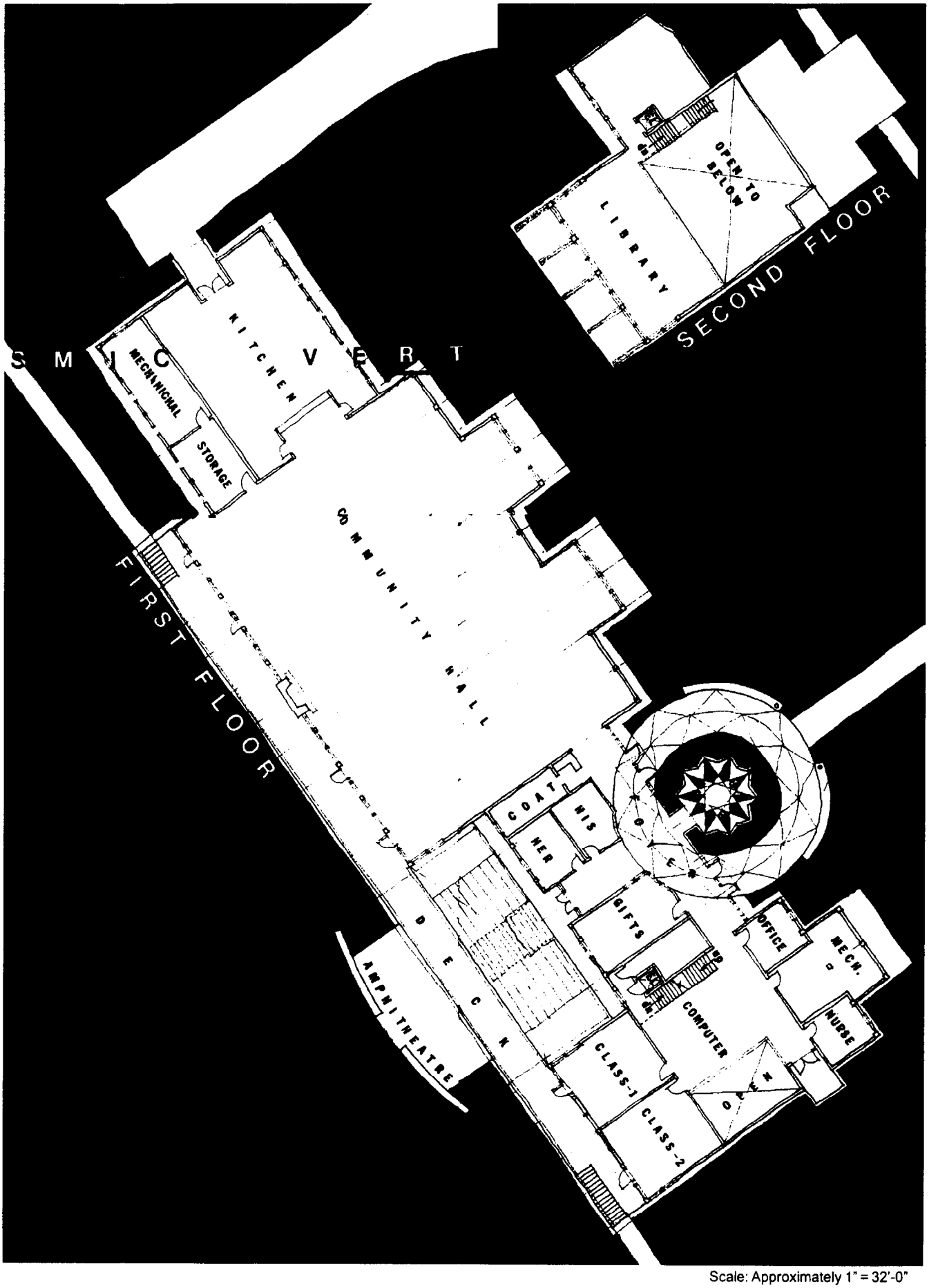
■ Lodge roofline bends toward the ridge, providing a lower horizontal profile on the north side of the lodge. This lower profile reduces visibility from the neighborhood while also enhancing the fit of the lodge within the tree and land profiles.

■ Section of the lodge is designed to focus the view to the lake and create an environment that feels a part of the nature in which the lodge is embedded.

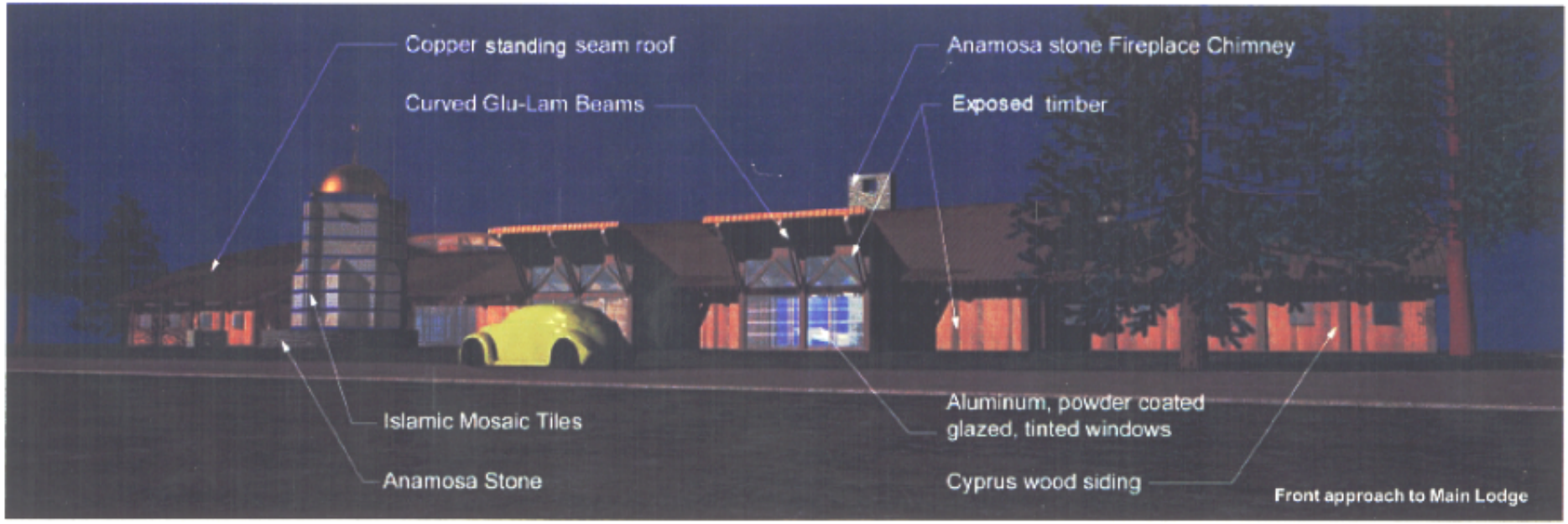
Materials for the lodge are chosen to help the lodge blend into the natural setting. Copper roof-sheeting which shall oxidize to a blue-green patina. Cyprus siding oxidizes to a darker color but is still a light wood texture.



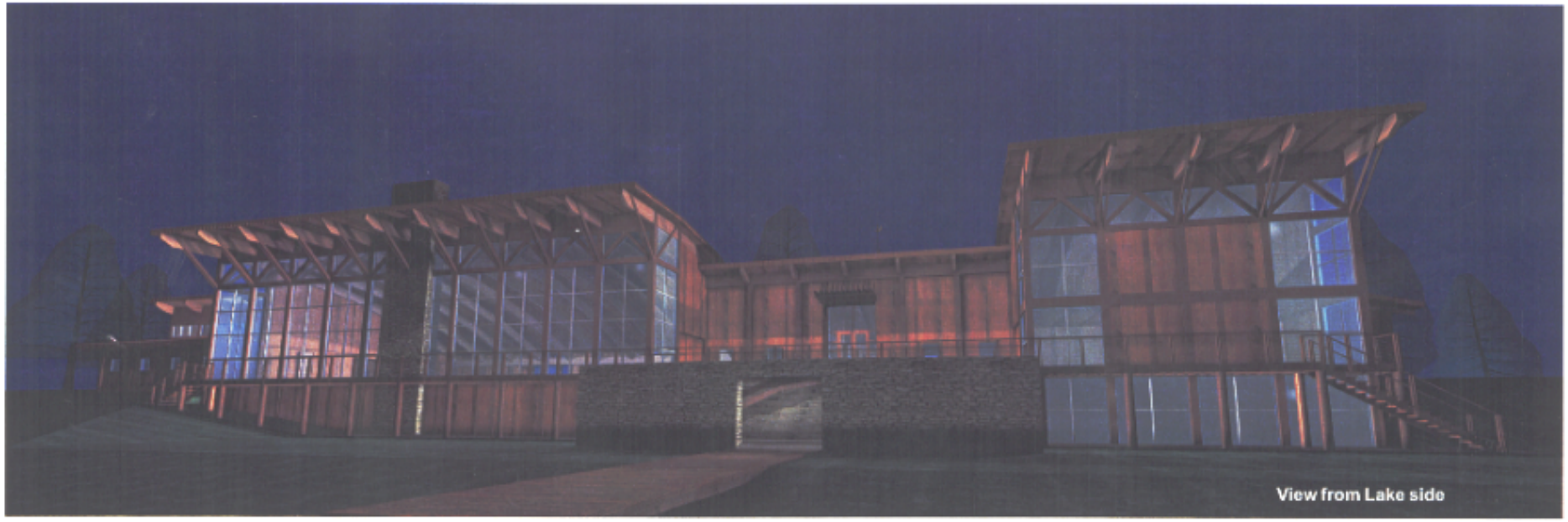
Section through Main Lodge



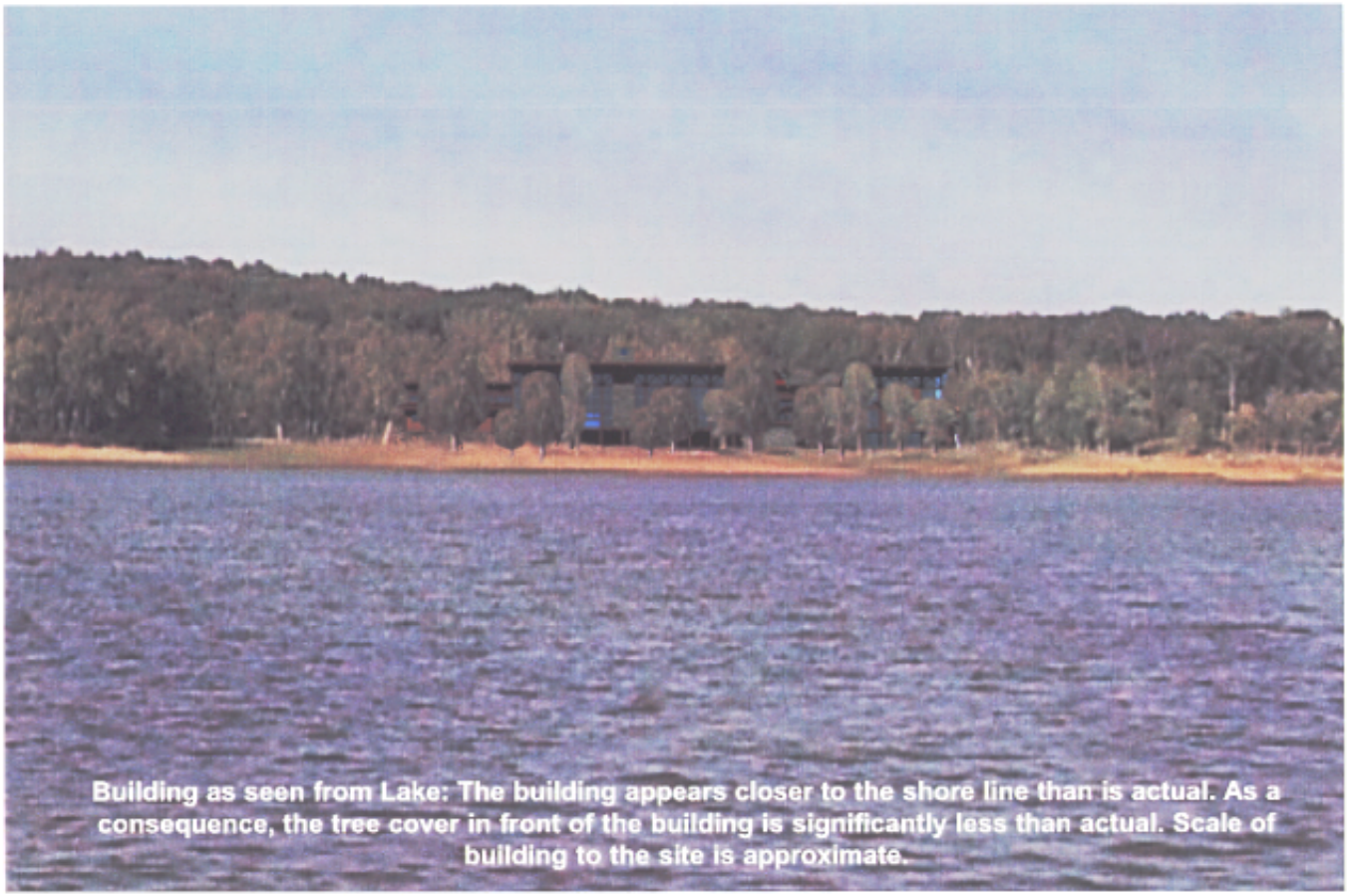
Scale: Approximately 1" = 32'-0"



Front approach to Main Lodge

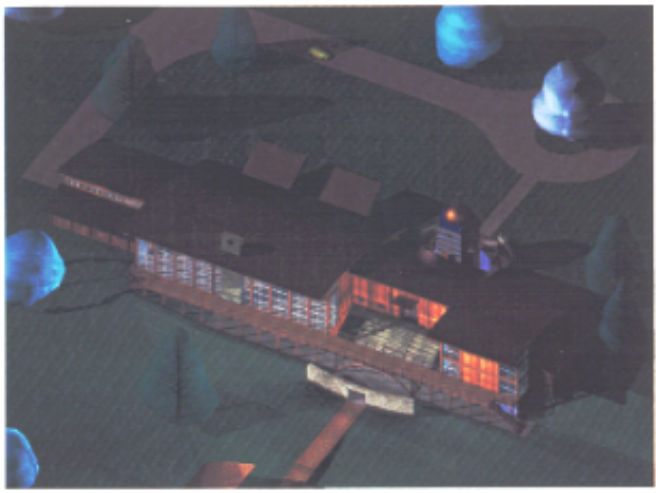


View from Lake side



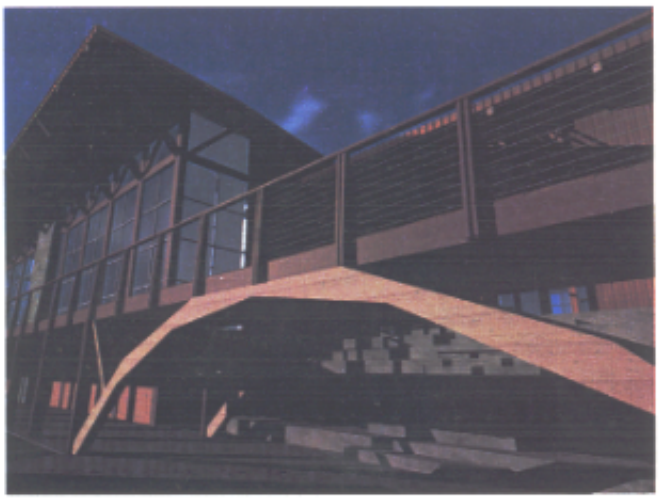
Building as seen from Lake: The building appears closer to the shore line than is actual. As a consequence, the tree cover in front of the building is significantly less than actual. Scale of building to the site is approximate.

View at Entrance: Prayer room with mosaic tiles

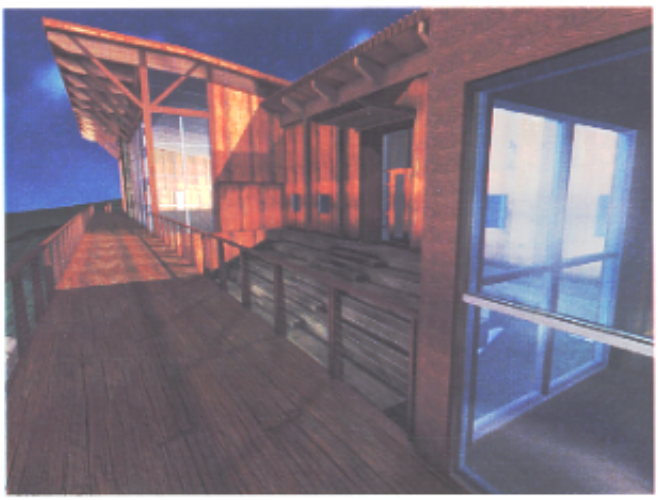


Aerial View

View at Kitchen Side



Amphitheatre from Lower Level



Amphitheatre from Deck

Interior of Community Hall

Interior of Entrance foyer: Looking at Prayer Room

■ UTILITIES:

The utilities for Camp Heritage will enter the camp and run parallel along the entrance road that runs the Central Ridge. Those utilities will include electricity, telephone, gas and cable. The utilities will be split at appropriate sites along the way to provide utility coverage to the facilities spread across the ridge. Gas for cooking will be provided through natural gas lines.

Heating for the cabins and shower/restroom will be provided by ground source heat pumps in conjunction with radiant heat floors. The heat source will be achieved through a horizontal loop underground or, utilizing the availability of the lake and with permission of the COE, a system will be run underwater.

Water will be achieved through either a well or through the lake. Surface water in southeastern Iowa carries more contaminants and is harder to provide clean water for use, while the ground water has significant problems with minerals (refer to reports from Filtra Tech attached). If MYCA decides upon a well, the site of the well will need to be determined in relationship to the placement of the sewage systems (refer to reports from Bio-Save attached). The type and placement of the septage system will shape from where drinking water can be provided. There are two wells currently on the site. The first is near the old Girl Scout lodge off the Central Ridge and which was drilled for the Girl Scouts. There is also a well on the Western Plateau, down near the rustic pit-toilets. The code pertaining to the release of effluent and its distance-relationship to a well will define just where on site the two phenomenon can occur.

FILTRA TECH SYSTEMS

1114 South 5th Street
Hopkins, MN 55343
Tel: (612) 988 9600
Fax: (612) 988 9700

To: Sanjay Jani, Akar Architecture
From: Matt Pannier

Re: MYCA, Camp Heritage

Here are two water analyses' that we performed in a plant in Aberdeen, SD. This water analysis is typical of the mid-west, the first sample (sample #1) is typical treated water with the source being ground water (Missouri River in this case), the second sample (sample #2) is the same water treated with Salt Softening.

This water is treated primarily with Potassium permanganate and chlorine. Since you would be drawing straight from the river, we would recommend one of two scenarios: 1) you could filter the water, then inject chlorine to kill all bacteria, then you could filter and remove all the chlorine Point of use with carbon filters. Or you could 2) Filter the water source down to 0.2 microns to remove all bacteria; We could really filter down to 1 micron absolute. This has been known to remove two of the most harmful bacteria's- Giardia and Cryptosporidium.

It is really much too early to decide what exact filtration will be done. These are of the most common methods of treating water for consumption. A detailed water analysis would for surely tell us what to do. It would not be uncommon to use a Reverse Osmosis System to filter the water if needed. If there were a lot of harmful chemicals in the water, more drastic filtration would be needed. I've included a common analysis of RO Water for you as well (sample #3).

A Well Water source tends to have the same conductivity, however, it tends to be much harder in make up (higher levels of Calcium and Magnesium).

As I mentioned on the phone with you, there are many different ways to accomplish your filtration needs. The first step is to find out what our source water is like, the next step is to decide what quality you want to achieve, and the third step is to develop a filtration plan to achieve this goal.

Osmonics Laboratory Analysis Report

Customer: Filtra Tech Systems
Location: Hopkins. MN
Sample Description: Abardeen Plant, SD
Before water Softener **Sample #1**
Analysis Requested: standard IC Package

Conductivity	717 uSiemens (uS)	
PH	8	
IC Sodium	160 mg/L as CaCO3	73.2 mg/L as ion
IC Calcium	122 mg/L as CaCO3	48.9 mg/L as ion
IC Magnesium	79.1 mg/L as CaCO3	19.2 mg/L as ion
IC Potassium	5.13 mg/L as CaCO3	4.01 mg/L as ion
IC Ammonium	0.81 mg/L as CaCO3	0.29 mg/L as ion
IC Chloride	19.3 mg/L as CaCO3	13.7 mg/L as ion
IC Sulfate	185 mg/L as CaCO3	178 mg/L as ion
IC Fluoride	3.60 mg/L as CaCO3	1.37 mg/L as ion
IC Nitrate	0.35 mg/L as CaCO3	0.43 mg/L as ion
IC Nitrite	N/D	
IC Phosphate	N/D	
IC Bromide	NID	
IC Acetate	N/D	
Alkalinity, total	146 mg/L as CaCO3	
Silica, react ve	7.4 mg/L	
Iron, soluble 0.03 mg/L		

Customer: Filtra Tech Systems
Location: Hopkins. MN
Sample Description: Abardeen Plant, SD
after water Softener **Sample #2**
Analysis Requested: standard IC Package

Conductivity	775 uSiemens (uS)	
PH	8.1	
IC Sodium	386 mg/L as CaCO3	177 mg/L as ion
IC Calcium	2.5 mg/L as CaCO3	1 mg/L as ion
IC Magnesium	0.62 mg/L as CaCO3	0.15 mg/L as ion
IC Potassium	1.32 mg/L as CaCO3	1.03 mg/L as ion
IC Ammonium	N/D	
IC Chloride	19.9 mg/L as CaCO3	14.1 mg/L as ion
IC Sulfate	190 mg/L as CaCO3	183 mg/L as ion
IC Fluoride	2.66 mg/L as CaCO3	1.01 mg/L as ion
IC Nitrate	0.32 mg/L as CaCO3	0.39 mg/L as ion
IC Nitrite	N/D	
IC Phosphate	N/D	
IC Bromide	NID	
IC Acetate	N/D	
Alkalinity, total	152 mg/L as CaCO3	
Silica, react ve	7.3 mg/L	
Iron, soluble	0.05 mg/L	

Osmonics Laboratory Analysis Report

Customer: Filtra Tech Systems
Location: Hopkins. MN
Sample Description: Unknown, RO(reverse osmosis) Water
After RO **Sample #3**
Analysis Requested: standard IC Package

Conductivity	602 uSiemens (uS)	
PH	6	
IC Sodium	6.04 mg/L as CaCO3	73.2 mg/L as ion
IC Calcium	122 mg/L as CaCO3	2.77 mg/L as ion
IC Magnesium	12.3 mg/L as CaCO3	4.92 mg/L as ion
IC Potassium	7.29 mg/L as CaCO3	1.77 mg/L as ion
IC Ammonium	0.19 mg/L as CaCO3	0.07 mg/L as ion
IC Chloride	6.84 mg/L as CaCO3	4.85 mg/L as ion
IC Sulfate	0.12 mg/L as CaCO3	0.12 mg/L as ion
IC Fluoride	0.13 mg/L as CaCO3	0.05 mg/L as ion
IC Nitrate	N/D	
IC Nitrite	N/D	
IC Phosphate	N/D	
IC Bromide	NID	
IC Acetate	N/D	
Alkalinity, total	24 mg/L as CaCO3	
Silica, react ve	1.7 mg/L	
Iron, soluble	0.02 mg/L	

FILTRA TECH SYSTEMS

1114 South 5th Street
Hopkins, MN 55343
Tel: (612) 988 9600
Fax: (612) 988 9700

To: Sanjay Jani, Akar Architecture
Re: MYCA, Camp Heritage

Here is the drinking water standards set by the U.S. Keep in mid that these are the standards set for bottling water standards, which very few companies adhere to. Please call if you have any questions.

Regards,

Matt Pannier

Notes:

1 Maximum contaminant level goal (MCLG) is a nonenforceable goal at which no adverse health effects occur.
2 Maximum contaminant level (MCL) is a federally enforceable standard.
3 Revised regulations will be based on presence/absence concept rather than an estimate of coliform density: effective December 1990-
4 Treatment Technique (TT) - requirements established in lieu of MCL's: effective beginning December 1990; MCL final for surface waters only.

US Non-Enforceable: Secondary Regulations- Secondary Maximum Contaminant Levels (SMCL's*)

Contaminant	SMCL's
aluminum	0.05 mg/L
chloride	250 mg/L
color	15 color units
copper	I mg/L
corrositivity	noncorrosive
fluoride	2 mg/L
foaming agents	*0.5* mg/L
iron	0.3 mg/L
manganese	0.05 mg/L
odor	3 threshold odor number
pH	6.5 - 8.5
silver	-
sulfate	250 mg/L
total dissolved solids (TDS)	500 mg/L
zinc	5 mg/L

* SMCL's are federal, nonenforceable recommendations which establish limits for drinking water constituents that may affect the aesthetics quality of the water, and the public's acceptance of it as safe (e.g., taste and odor). These levels represent reasonable goals for drinking water quality. The states may establish higher or lower levels, which may be appropriate depending upon local conditions such as lack of alternate source waters or other compelling factors, if public health and welfare is not adversely affected.

MMS CONSULTANTS, INC.
1917 S. GILBERT STREET • IOWA CITY • IOWA 52240-4363
OFFICE 319-351-8282 FAX: 319-351-8476

December 27, 1999

Will Palmer
BioSave, Inc.
10828 N. Biltmore Dr.
Suite 115
Phoenix, AZ 85029-5407

Re: Soil Evaluation for MYCA, Johnson County, Iowa

Dear Will,

We have complete the *preliminary* Soil and Site evaluation for the proposed wastewater treatment system for the referred campground facilities. The following are the results:

1. The proposed site is located on the N1/2, NE1/4, Sec. 31-81-6.
2. This is a heavily wooded site consisting of a variety of trees including oak, maple, locust, elm, and linden with thick native undergrowth.
3. Slopes range from C slopes (5-8%) to G slopes (25-40%) with several large and small drainageways dissecting the landscape.
4. The soils in the area are mapped as a Fayette Silt loam (see attached soil map and description). Three inch diameter solid core soil borings were taken with a UTV-mounted Giddings Drill Rig. Typically, the soil consists of a yellowish brown silt loam with strong medium prismatic structure parting to strong medium subangular blocky; dry silt coatings on faces of peds; friable.
5. Based on the soil type, the loading rate for a soil absorption system is 2.0 square feet per gallon per day which is equivalent to a percolation rate of 45 minutes/inch.
6. See attached location map for soil core locations and topography.

In general, the soil type is adequate for a soil absorption system. Care must be taken that trenches are not located at the head or within drainageways. Furthermore, the system should be located out of the Flood line and 400 feet away from any deep public well. Current state regulations have a 1000- foot separation distance from any *existing resident*. If you need any further assistance or have any questions or concerns, please contact us at (319)351-8282

Sincerely,

Judith J. Krieg
Geologist & Soil Specialist

cc. AKAR Architecture

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MMS CONSULTANTS, INC.

1917 S. GILBERT STREET • IOWA CITY • IOWA 52240-4363
OFFICE 319-351-8282 FAX: 319-351-8476

Robert D. Mickelson L.S. (Reti
Larry R. Schnittjer L.A.
Christopher M. Stephan P.E.
Glen D. Meisner L.S & P.I
Paul V. Anderson P.E.
Edward H. Brinton P.E.
David J. Biehl L.A.
James E. Lichty L.S.
Ronald L. Amelon P.E.
Glenn H. Boutelle, Jr. P.E.
Kelly J. Beckler P.E.
Mark A. Stein L.S.
Duane A. Musser L.A.
Mark A. Logan P.E.

ENGINEERING | LAND SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

January 3, 2000

AKAR Architecture
341 East College Street
Iowa City , IA 52240

Re: Soil Evaluation for MYCA, Johnson County, Iowa
Re: 1000-foot separation distance

Dear Sanjay,

This letter is to clarify the separation distance referred to in my letter dated December 27, 1999. Current state regulations require a 1000-foot separation distance from any existing residence to a proposed wastewater treatment system. It is reasonable to assume that this separation distance was put in place to protect existing residence from odors associated with treatment system like sewage lagoons. However, the state is in the process of changing the separation distance to 400 feet for newer wastewater treatment systems that do not produce odors. Based on discussions with Will Palmer of BioSave, Inc., the proposed wastewater treatment system for MYCA does not produce any odor. Until this state rule changes, you will need to request a variance from the 1000-foot separation. If the state does not grant you a variance, you will need to obtain a signed wavier from any resident that comes within 1000 feet of your wastewater treatment system. If you need any further assistance or have any questions or concerns, please contact me at (319)351-8282

Sincerely,

Judith J. Krieg
Geologist & Soil Specialist

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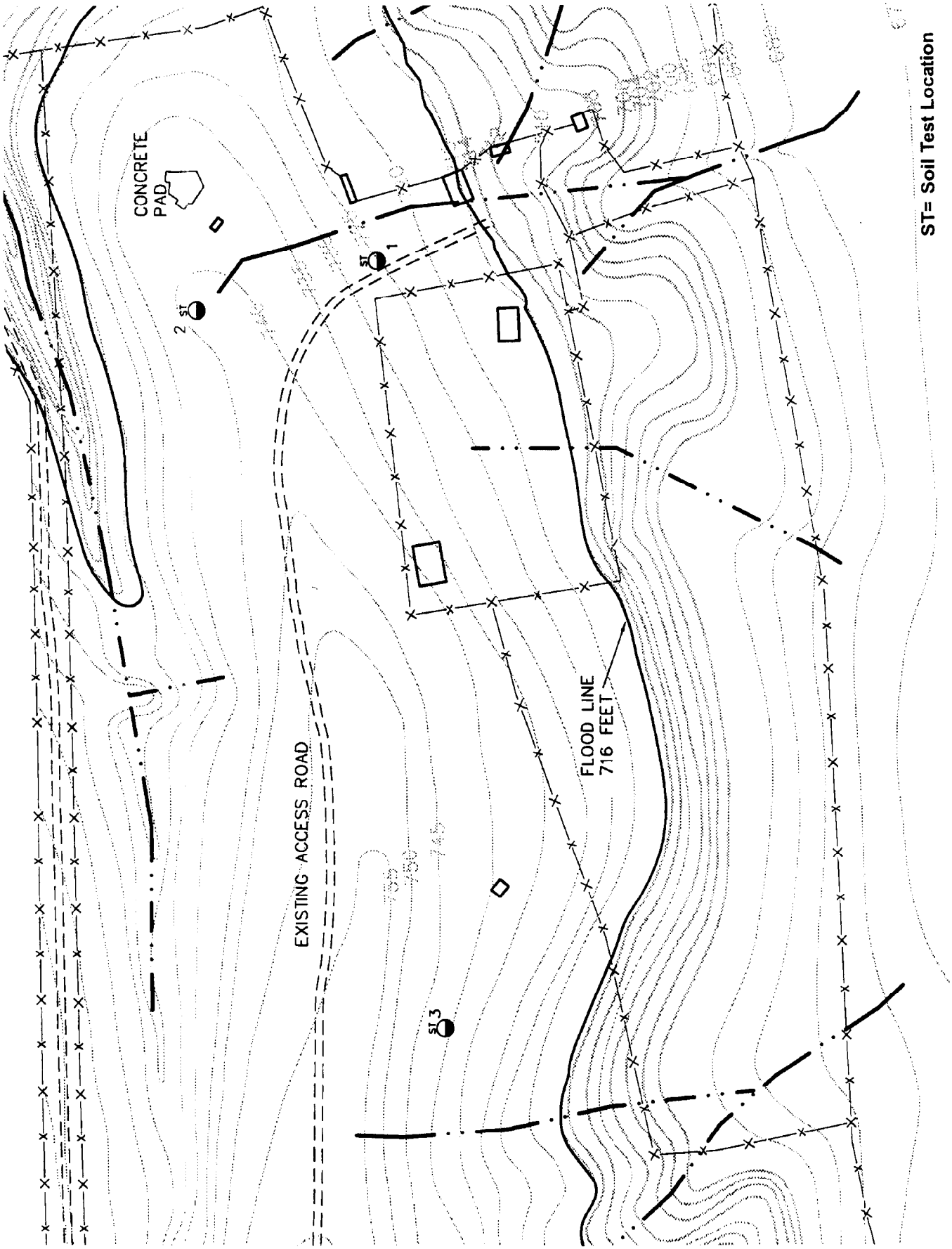
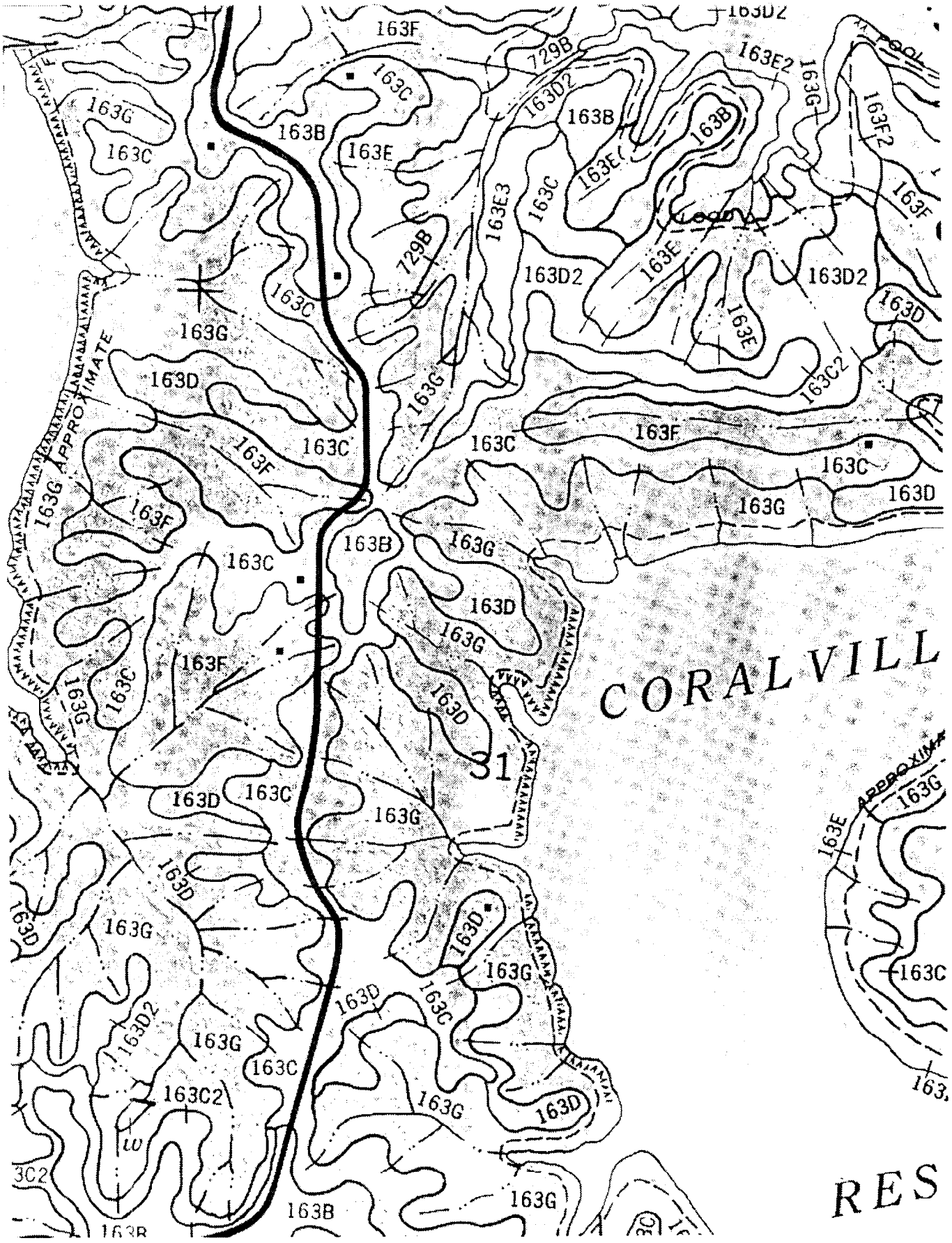

CONCRETE PAD
ST 1
2 ST
ST 3
EXISTING ACCESS ROAD
FLOOD LINE 716 FEET
ST= Soil Test Location
Site plan
n


163F
729B
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163C2
CORALVILL
RES
31

Fayette series

Fayette series consists of well-drained, moderately permeable soils that formed in loess more than 40 inches thick. These soils are mainly on ridges -and side slopes in uplands, but small areas are on benches adjacent to the major streams. Native vegetation was a deciduous tree. Slopes range from 2 to 40 percent.

Fayette soils are similar to Clinton and Downs soils and is commonly adjacent to Chelsea, Downs, Lindley, and Stronghurst soils. Clinton soils have more clay in the B horizon than Fayette soils. Downs soils have a thicker, dark A horizon and a less distinct A2 horizon. Chelsea soils formed in sandy material. Chelsea and Downs soils are in positions on the landscape similar to those of the Fayette soils. Lindley soils formed in glacial till and are on side slopes below the Fayette soils. Stronghurst soils have a grayer B horizon and are on concave slopes above the Fayette soils.

Typical pedon of Fayette silt loam, 2 to 5 percent slopes, 2,400 feet east and 900 feet north of the southwest corner of sec. 24, T. 80 N., R. 8 W.

AO-1 /2 inch to 0; decomposed leaf litter.

Al-0 to 3 inches; very dark gray (10YR 3/1) silt loam, gray (1 OYR 5/ 1) dry; weak fine granular structure; friable; medium acid; clear smooth boundary.

A21-3 to 5 inches; dark grayish brown (10YR 4/2) silt loam; weak thin platy structure; friable; thin discontinuous light brownish gray (1 OYR 6/2) dry silt peds; slightly acid; clear coatings on faces of smooth boundary.

A22-5 to 10 inches; dark grayish brown (10YR 4/2) and brown (10YR 4/3) silt loam; weak thin platy structure; friable; thin discontinuous light brownish gray (-IOYR 6/2) dry silt coatings on faces of peds; medium acid; clear irregular boundary.

Bl-10 to 14 inches; brown (10YR 4/3) silty clay loam-, moderate fine subangular blocky structure; friable; thin discontinuous pate brown (10YR 6/3) dry silt coatings on faces of peds; strongly acid; gradual smooth boundary.

B21t-14 to 20 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate fine and medium subangular and angular blocky structure; friable; thin discontinuous pale brown (10YR 6/3) dry silt coatings on faces of peds; thin discontinuous clay films; strongly acid; gradual smooth boundary.

B22t-20 to 28 inches; dark yellowish brown (10YR 4/4) silty clay loam; moderate medium subangular and angular blocky structure; friable; thin discontinuous pale brown (10YR 6/3) dry silt coatings on faces of peds; thin discontinuous clay films; strongly acid; gradual smooth boundary.

B31t-28 to 38 inches; yellowish brown (10YR 5/4) light silty clay loam; moderate fine and medium subangular and angular blocky structure; friable; few thin light gray (10YR 7/2) dry silt coatings on faces of peds; thin discontinuous clay films; strongly acid; gradual smooth boundary.

B32-38 to 47 inches; yellowish brown (IOYR 5/4) light silty clay loam; weak medium prismatic structure parting to moderate medium subangular and angular blocky; friable; few thin light gray (10YR 7/2) dry silt coatings on faces of peds; few dark iron concretions; strongly acid; gradual smooth boundary.

C-47 to 60 inches; yellowish brown (10YR 5/4) silt loam; massive; with distinct vertical cleavage; friable; strongly acid.

The solum ranges from 45 to 60 inches or more in thickness.

The Al horizon is very dark gray (10YR 3/1) or very dark grayish brown (10YR 3/2) and ranges from 2 to 5 inches in thickness. In cultivated areas the Ap horizon ranges from dark grayish brown (IOYR 4/2) to brown (IOYR 4/3 or 5/ 3). The A2 horizon typically is dark grayish brown (IOYR 4/2) and brown (10YR 4/3) but ranges to grayish brown (10YR 5/2) and brown (10YR 5/3). It ranges from 4 to 8 inches in thickness. The A horizon is silt loam that ranges from 15 to 25 percent content of clay. The B2t horizon has value of 4 or 5 and chroma of 3 or 4. Clay content of the

BIO-SAVE, INC. memo

To: **SANJAI JANI**

From: **WILL PALMER 602-564-0019** **FAX 602-548-1076**

TOLL FREE 877-664-0019 **e-mail biosave@netwrx.net**

Date: **01/02/00**

Re M.Y.C.A. project

Dear Mr. Jani,

Attached are four conceptual options for the treatment of the septage that is developed at the camp. Since the locations of the new buildings is unknown, there is no way to accurately draw a plot-plan siting the actual layouts. The concept should remain unchanged, however, and should be satisfactory to the various regulatory agencies.

I have had several conversations with County and State regulators, discussing our ideas in some detail, and have been assured that we are in general agreement, and have gone as far as we can at this time. The final design and gallonage will be determined after your firm has completed the initial design and layout.

The following items have been mutually agreed upon, and, I feel are workable.

1 – The FAST System will give the best treatment at the least cost, both for installation and maintenance. As you know, it has only one moving part, yet EPA and NSF testing show it to be one of the best class one systems, consistently treating under 10-10-10 including denitrification. If you need additional technical information, please let me know.

2 – We will keep the entire system 1000 feet away from existing residences. (Refer to Letter by MMS, page 35)

3 – We will not attempt to use any land at the head of, or in, any of the drainage ways.

4 – No trees will be cut, unless it is necessary for the tank placement or "D" boxes or other miscellaneous parts placement. The leachfield will consist of either sub-surface or surface irrigation, or a combination of the two.

If you need any additional information, or have any. questions, please contact me at your convenience

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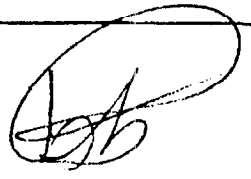
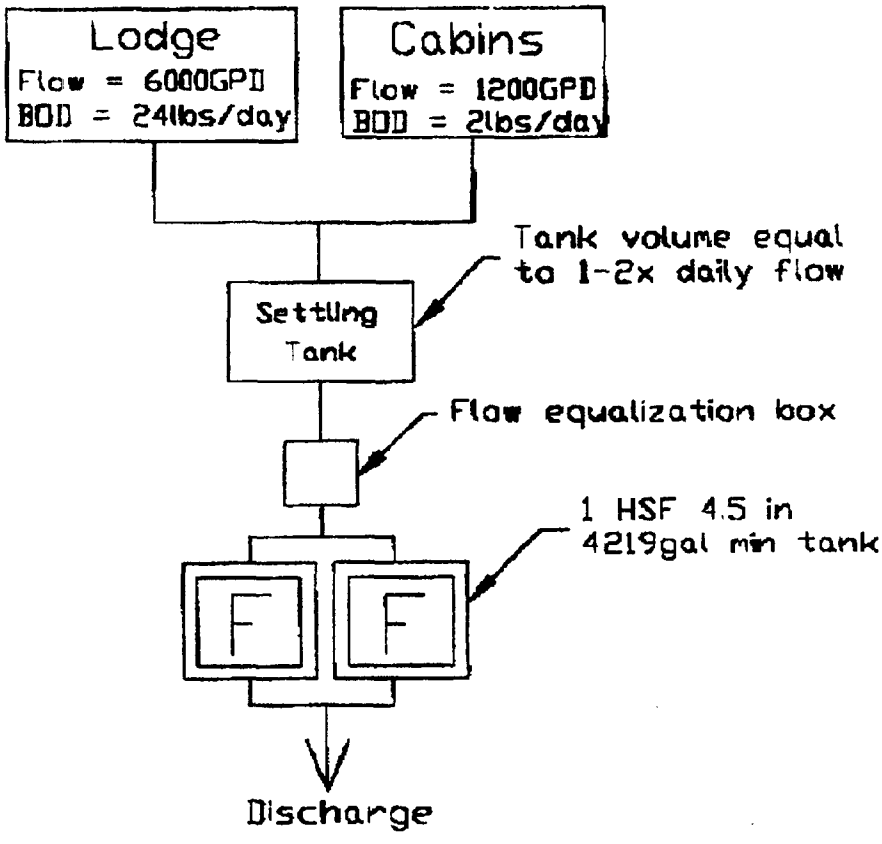
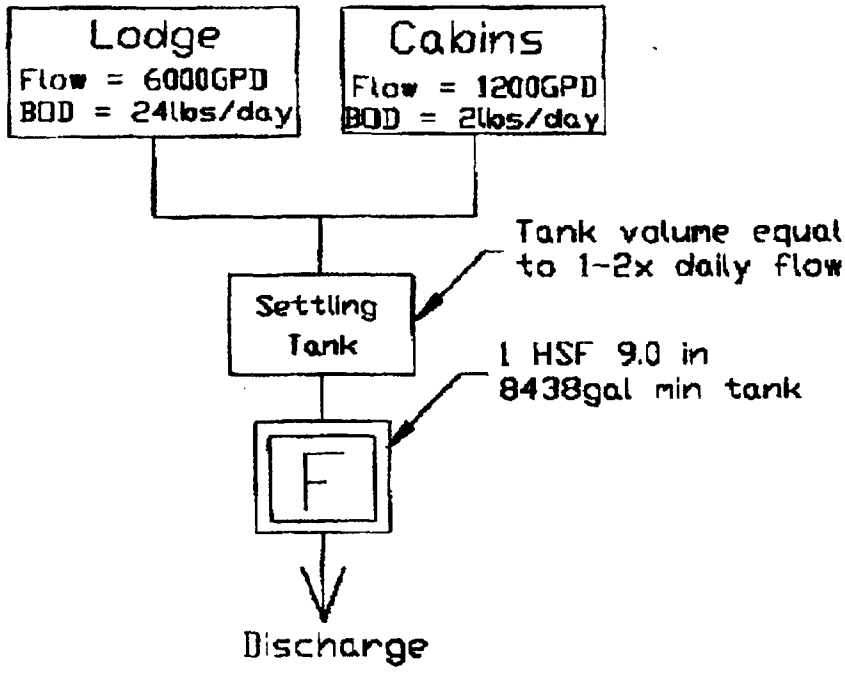


* Refer to the FAST manual attached for Technical data and information.

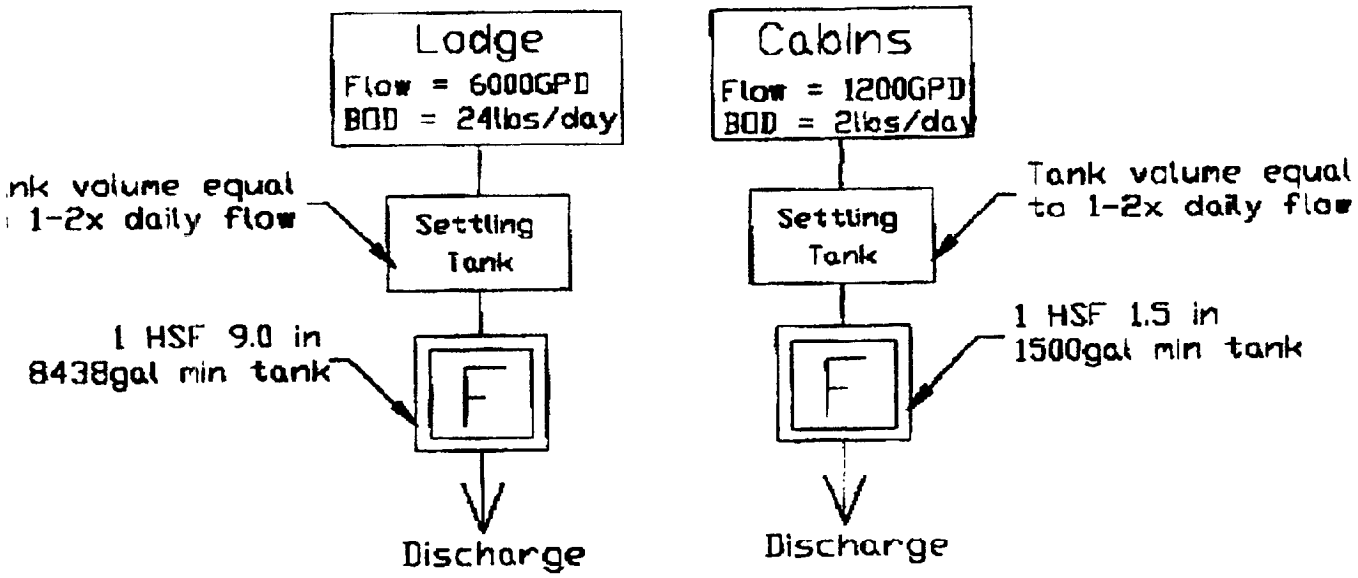
OPTION #1



OPTION #2



OPTION #3



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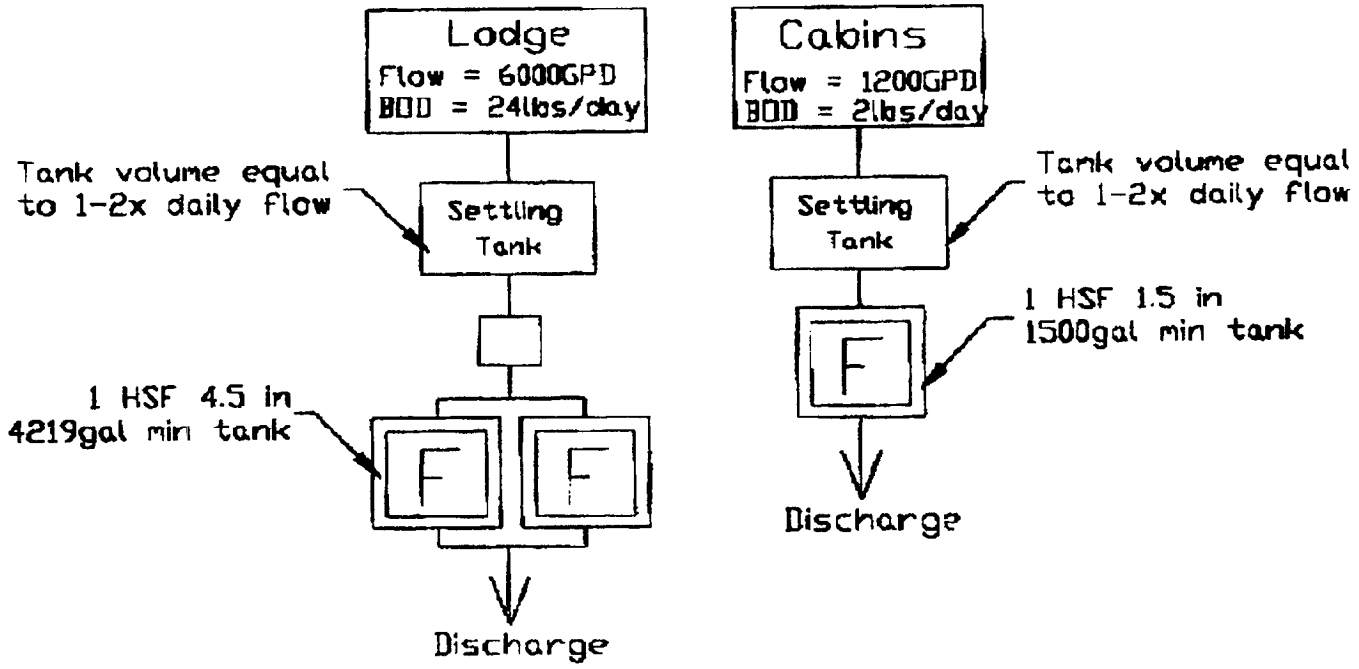
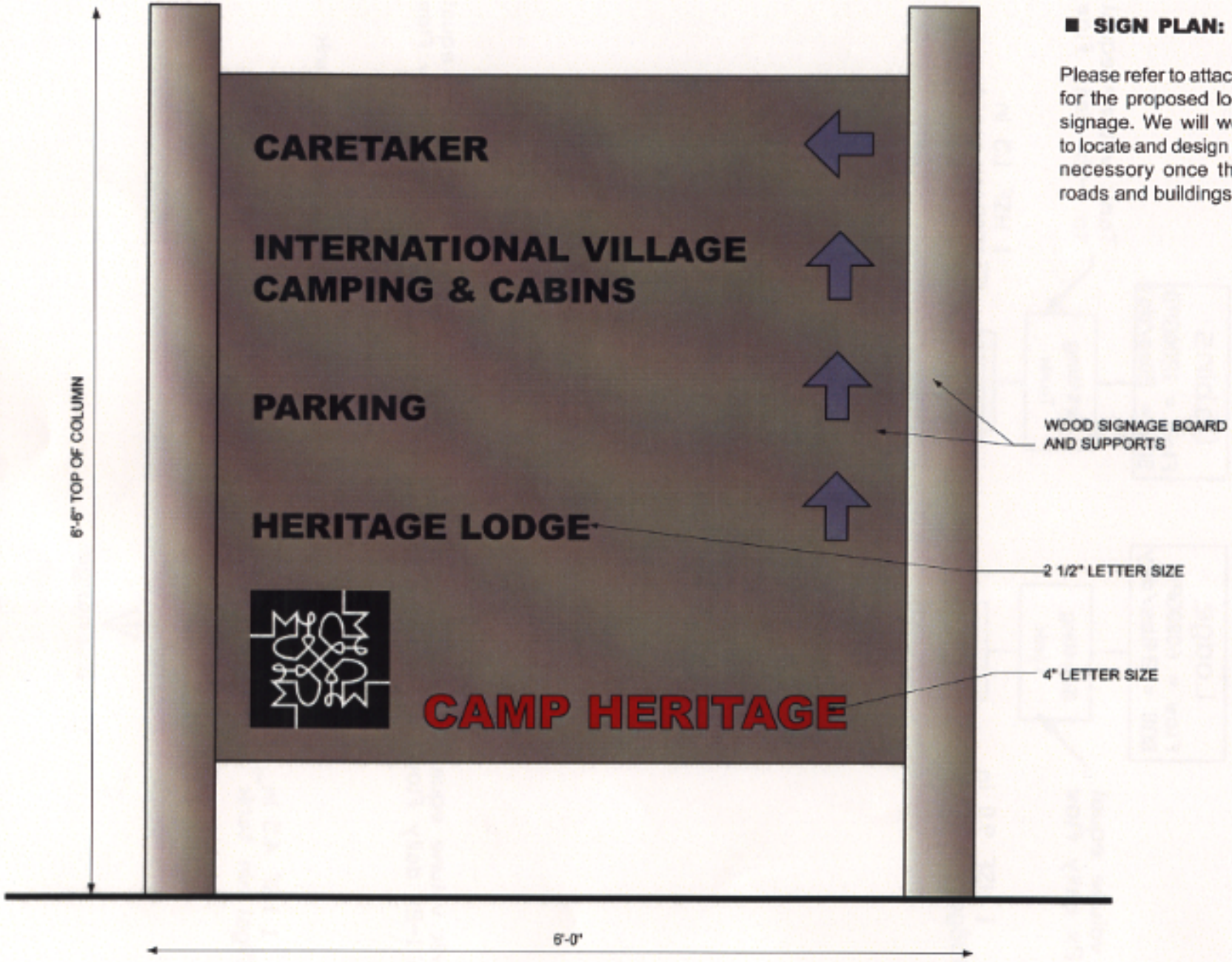


*** Refer to the FAST manual attached for Technical data and information.**



Typical Signage for Camp Heritage

■ SIGN PLAN:

Please refer to attached Site plans for the proposed locations of the signage. We will work with COE to locate and design all the signage necessory once the location of roads and buildings are finalized.

SITE PLAN

SCALE: 1" = 100'

AKAR ARCHITECTURE
AND DESIGN
341 E COLLEGE STREET, IOWA CITY, IA 52240, TEL: 319. 351. 1227

CAMP HERITAGE


EXISTING TRAIL, WIDEN TO 18'-0" GRAVEL BED, TYP
PARKING
PARKING
TRAIL
CABIN - 1
CABIN - 2
CABIN - 3
CABIN - 4
CABIN - 5
CABIN - 6
CABIN - 7
CABIN - 8
CABIN - 9
CABIN - 10
TENT PAD
COMMON BATH/ TOILET
750
745
740
735
730
725
720
715
716 1993 FLOOD LINE
SITE PLAN: CABINS
SCALE: 1/16" = 1'-0"
N
AKAR ARCHITECTURE
AND DESIGN
341 E. COLLEGE STREET, IOWA CITY, IA 52240. T/F: 319. 351. 1227
CAMP HERITAGE
S-2

SITE PLAN: LODGE

SCALE: 1/16" = 1'

N

S-3

CAMP HERITAGE

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AND DESIGN
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